

CLAIMS

What is claimed is:

1 1. A computer system comprising:
2 a hardware unit to transmit data representing graphics to another
3 computer or a display;
4 a processor coupled to the hardware unit; and
5 a storage device coupled to the processor and having stored therein a
6 routine, which when executing by the processor, causes the processor to
7 generate the data, the routine at least causing the processor to at least,
8 access a first data operand having a data element;
9 access a second packed data operand having at least two data
10 elements;
11 insert the data element in the first data operand into a
12 destination field of a destination register.

1 2. The computer system of claim 1 wherein the storage device further
2 comprises a packing device for packing floating point data into the data
3 elements.

1 3. The computer system of claim 1 wherein the storage device further
2 comprises a packing device for packing integer data into the data elements.

1 4. A computer system comprising:
2 a hardware unit to transmit data representing graphics to another
3 computer or a display;

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4 a processor coupled to the hardware unit; and
5 a storage device coupled to the processor and having stored therein a
6 routine, which when executing by the processor, causes the processor to
7 generate the data, the routine at least causing the processor to at least,
8 access a first packed data operand having at least two data
9 elements; and
10 extract one of the data elements from the first packed data
11 operand into a field of a destination register.

1 5. The computer system of claim 4 wherein the storage device further
2 causes the processor to extract one of the data elements from the first packed
3 data operand into a field of a packed destination register.

1 6. The computer system of claim 4 wherein the storage device further
2 comprises a packing device for packing floating point data into the data
3 elements.

1 7. The computer system of claim 4 wherein the storage device further
2 comprises a packing device for packing integer data into the data elements.

1 13. The method of claim 11 further comprising the step of packing floating
2 point data into the data elements.

1 14. The method of claim 11 further comprising the step of packing integer
2 data into the data elements.

1 15. A method comprising the computer implemented steps of:
2 accessing data representative of a first three-dimensional image;
3 altering the data using three-dimensional geometry to generate a
4 second three-dimensional image, the step of altering at least including,
5 accessing a first data operand having a data element;
6 accessing a second packed data operand having at least two data
7 elements;
8 inserting the data element in the first data operand into a destination
9 field of a destination register; and
10 displaying the second three-dimensional image.

1 16. The method of claim 15 wherein the step of altering includes the
2 performance of a three-dimensional transformation.

1 17. The method of claim 15 wherein the step of altering includes the step
2 of packing floating point data into the data elements.

1 18. The method of claim 15 wherein the step of altering includes the step
2 of packing integer data into the data elements.

1 19. A method comprising the computer implemented steps of:

2 accessing data representative of a first three-dimensional image;
3 altering the data using three-dimensional geometry to generate a
4 second three-dimensional image, the step of altering at least including,
5 accessing a first packed data operand having at least two data elements;
6 and
7 extracting one of the data elements from the first packed data operand
8 into a field of a destination register; and
9 displaying the second three-dimensional image.

1 20. The method of claim 19 wherein the step of altering further includes
2 the step of extracting one of the data elements from the first packed data
3 operand into a field of a packed destination register.

1 21. The method of claim 19 wherein the step of altering includes the
2 performance of a three-dimensional transformation.

1 22. The method of claim 19 wherein the step of altering includes the step
2 of packing floating point data into the data elements.

1 23. The method of claim 19 wherein the step of altering includes the step
2 of packing integer data into the data elements.